

The Miriam Hospital

Total Joint Replacement (Hip, Knee) Inpatient Clinical Guidelines Pre- Admission Preparation

Daily Outcomes:

- Patient is scheduled for pre-**admission testing and orientation through the surgeon's office in coordination with the** surgical booking office at The Miriam Hospital, ideally, 4 weeks prior to surgery.
- Patient completes Pre-Admission screening
- Patient Receives written Total Joint Replacement patient guide and access to online Total Joint Video link.
- Pt enrolls in AJRR and/or FORCE-TJR

Diagnostic Test

- Per Anesthesia Evidence-Based Matrix- labs ordered by PAT NP

Consults

- PCP, PRN
- Cardiology, PRN

PAT Assessments

- VS and physical assessment as per PAT Policy
- Complete Admission History
- Complete Medication Reconciliation
- Complete psychosocial/ SI assessment.

Treatments/Procedures

- Education re: at- home preparations
- Receives education and Chlorhexidine soap, and instructions for use both written and verbally

Patient/Family Education

- RN, NP discusses plan of care and answers patient and family questions.

Pre-Op Total Joint Orientation

- Online in order to maintain physical distance.
- Reviews Pre-Op Preparation and Discharge Planning options
 - Home Safety Preparation
 - Use of community resources
 - Personal Health Preparation
 - Pre-Op Exercise Routine
 - Pre-Op Chlorhexidine Shower
 - Protein Shake Supplements
- Reviews In-Hospital Expectations
 - Pre-Operative Care
 - Anesthesia Options
 - Post-Operative Care
 - Preventative Measures regarding Pain, DVT, Constipation, Bladder Function, Falls
 - Expected Mobility Plan regarding Post Op Day ZERO Mobilization and subsequent therapy sessions
 - Case Management and other team members' Role in discharge planning
- Reviews Discharge Planning options
 - General Description of Discharge Options
 - Goals for Safe Discharge
 - Determining factors for safe discharge
 - Outpatient Physical Therapy description
- Multidisciplinary- RN and Rehab Service Representatives present.
- Allows patient and family time to have personal questions resolved.
- Total Joint Replacement Patient Guide specific is provided to patients despite their ability to attend the orientation session. Total Joint Hotline Information is provided; along with additional off-hours contact information to ensure patients have access to the Program Manager should questions arise.

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Total Joint Replacement (Hip, Knee) Inpatient Clinical Guidelines Day of Surgery

Daily Outcomes:

- Patient is prepared for surgery using Universal Protocol safety measures; undergoes surgery using all appropriate Operating Room safety measures; and recovers from surgery under the supervision of responsible anesthesia and nursing providers, following Perioperative policies and guidelines.
- Anesthesia options are reviewed with patient and selected based on patient factors.
- Patient remains hemodynamically stable with baseline mental status
- Patient has effective pain control
- Surgical site(s) are without significant swelling & drainage
- Patient able to participate in POD0 mobilization (PT or RN) if medically able to do so.

Consults

- General Medicine, PRN
- Geriatric, PRN
- Cardiology, PRN
- Physical Therapy
- General Surgery, PRN

Assessments

- VS and physical assessment as per PACU/ Nursing Unit standard practices
- Use patients own CPAP if applicable
- Monitor operative site for bleeding/ swelling
- Pain and Sedation assessment and treatment as per protocol and before/ after Physical Therapy

Treatments/Procedures

- Monitor for adequate urine output if no Foley is present, following bladder management protocol.
- C&DB and/or use incentive spirometer 10x/hr while awake, depending on patient specific factors.
- Notify MD if Temp>101.5, HR>120, SBP>180 or <90, RR>28 or <12, SatO2<89%
- AVI Boots (Foot Pumps) or SCDs in use when patient is in bed.
- Check operative dressings for drainage

Medications

- Anticoagulant therapy daily
- Pre-Op: Antibiotic (x1 dose) and Pre-Op Pain Medication Regimen (see order form)
- IV fluids
- Post Op: Antibiotic per SCIP guidelines and Pain meds as ordered ATC and PRN
- Post op Bowel medications as ordered
- Review and restart Home Medications as appropriate

Activity

- Patient participates in PT eval POD 0 if patient is medically stable. Goal: Ambulation in room/ to restroom. Mobilization with RN is expected if patient is stable.
- PT to evaluate for rapid discharge if plan has been established with patient and MD. If meets goals, Case management to coordinate transition home with/ without home care services.

Diet

- Post Op diet for first meal- Transition to Regular diet as tolerated on POD 0 (if early surgery)
- Special diet if indicated by past medical history

Patient/Family Education

- RN, NP, PT, OT, CM, MD discusses plan of care and answers patient and family questions.

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Total Joint Replacement (Hip, Knee) Inpatient Clinical Guidelines Post-Op Day 1

Daily Outcome

- Hemodynamically stable with baseline mental status
- Patient has effective pain control
- Surgical sites are without significant swelling & drainage
- IV fluids discontinued if patient tolerates po fluids
- Patient OOB in chair and ambulating with walker as tolerated with PT and with RN/Trained Aids.

Diagnostic Test

- CBC and BMP to be drawn in AM. Other labs (PT INR) as appropriate.

Consults

- General Medicine, PRN
- General Surgery, PRN
- Cardiology, PRN
- Geriatrics, PRN
- Case Management
- Occupational Therapy

Assessments

- VS and physical assessment per nursing unit protocol
- Monitor operative site for bleeding
- Assess for positive flatus/return of bowel function
- CSM checks q 8 hours
- Pain and Sedation Scales per protocol
- Assess bladder function

Treatments/Procedures

- Follow Total Joint Bladder Management Protocol
- C&DB and/or use incentive spirometer 10x/ hr while awake
- Notify MD if Temp>101.5, HR>120, SBP>180 or <90, RR>28 or <12, SatO2<89%
- AVI Boots (foot pumps) in use when patient in bed.
- Check operative dressings for drainage, follow MD order re: dressing changes

Medications

- Anticoagulant therapy
- Pain and bowel medications as ordered, both ATC and PRN
- Bowel Regimen
- Home Medications

Activity

- Patient to participate 1-2x day with PT (Goal amb hall and stairs and therex) and ambulate with nursing staff also.
- Occupational Therapy evaluation/ treatment if indicated
- OOB to Chair for all meals.
- Dressed in home clothing.

Diet

- Regular diet. (Special diet if indicated by past medical history)

Discharge Planning

- Patient and family/Significant Other discuss DISCHARGE home plans with RN and CM. Discharge if goals met.
- Home Care Pathway: CM to confirm first home care visit and coordinate other needs.
- Skilled Nursing Facility Pathway: CM to assist with SNF selection process and coordinate admission to selected/available facility.
- Attend discharge class (Tues-Fri)

Patient/Family Education

- RN, PT, OT, CM, MD to discuss plan of care and answer patient and family questions.

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Total Joint Replacement (Hip, Knee) Inpatient Clinical Guidelines Post-Op Day 2 (if needed)

Daily Outcome

- Hemodynamically stable with baseline mental status
- Patient has effective pain control
- Surgical sites are without significant swelling & drainage
- IV fluids discontinued if patient tolerates po fluids
- Patient OOB in chair and ambulating with walker as tolerated with PT and with RN/Trained Aids.

Diagnostic Test

- CBC and BMP to be drawn in AM. Other labs (PT INR) as appropriate.

Consults

- General Medicine, PRN
- General Surgery, PRN
- Cardiology, PRN
- Geriatrics, PRN
- Case Management
- Occupational Therapy

Assessments

- VS and physical assessment per nursing unit protocol
- Monitor operative site for bleeding
- Assess for positive flatus/return of bowel function
- CSM checks q 8 hours
- Pain and Sedation Scales per protocol
- Assess bladder function

Treatments/Procedures

- Follow Total Joint Bladder Management Protocol
- C&DB and/or use incentive spirometer 10x/ hr while awake
- Notify MD if Temp>101.5, HR>120, SBP>180 or <90, RR>28 or <12, SatO2<89%
- AVI Boots (foot pumps) in use when patient in bed.
- Check operative dressings for drainage, follow MD order re: dressing changes

Medications

- Anticoagulant therapy
- Pain and bowel medications as ordered, both ATC and PRN
- Bowel Regimen
- Home Medications

Activity

- Patient to participate 1-2x day with PT (Goal amb hall and stairs and therex) and ambulate with nursing staff also.
- Occupational Therapy evaluation/ treatment if indicated
- OOB to Chair for all meals.
- Dressed in home clothing.

Diet

- Regular diet. (Special diet if indicated by past medical history)

Discharge Planning

- Patient and family/Significant Other discuss DISCHARGE home plans with RN and CM. Discharge if goals met.
- Home Care Pathway: CM to confirm first home care visit and coordinate other needs.
- Skilled Nursing Facility Pathway: CM to assist with SNF selection process and coordinate admission to selected/available facility.
- Attend discharge class (Tues-Fri)

Patient/Family Education

- RN, PT, OT, CM, MD to discuss plan of care and answer patient and family questions.

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Total Joint Replacement (Hip, Knee) Inpatient Clinical Guidelines Post-Op Day 3 (If applicable)

Daily Outcome

- Hemodynamically stable with baseline mental status
- Patient has effective pain control
- Surgical sites are without significant swelling & drainage
- IV fluids discontinued if patient tolerates po fluids
- Patient OOB in chair and ambulating with walker as tolerated with PT and with RN/Trained Aids.

Diagnostic Test

- CBC and BMP to be drawn in AM. Other labs (PT INR) as appropriate.

Consults

- General Medicine, PRN
- General Surgery, PRN
- Cardiology, PRN
- Geriatrics, PRN
- Case Management
- Occupational Therapy

Assessments

- VS and physical assessment per nursing unit protocol
- Monitor operative site for bleeding
- Assess for positive flatus/return of bowel function
- CSM checks q 8 hours
- Pain and Sedation Scales per protocol
- Assess bladder function

Treatments/Procedures

- Follow Total Joint Bladder Management Protocol
- C&DB and/or use incentive spirometer 10x/ hr while awake
- Notify MD if Temp>101.5, HR>120, SBP>180 or <90, RR>28 or <12, SatO2<89%
- AVI Boots (foot pumps) in use when patient in bed.
- Check operative dressings for drainage, follow MD order re: dressing changes

Medications

- Anticoagulant therapy
- Pain and bowel medications as ordered, both ATC and PRN
- Bowel Regimen
- Home Medications

Activity

- Patient to participate 1-2x day with PT (Goal amb hall and stairs and therex) and ambulate with nursing staff also.
- Occupational Therapy evaluation/ treatment if indicated
- OOB to Chair for all meals.
- Dressed in home clothing.

Diet

- Regular diet. (Special diet if indicated by past medical history)

Discharge Planning

- Patient and family/Significant Other discuss DISCHARGE home plans with RN and CM. Discharge if goals met.
- Home Care Pathway: CM to confirm first home care visit and coordinate other needs.
- Skilled Nursing Facility Pathway: CM to assist with SNF selection process and coordinate admission to selected/available facility.
- Attend discharge class (Tues-Fri)

Patient/Family Education

- RN, PT, OT, CM, MD to discuss plan of care and answer patient and family questions.

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Total Joint Replacement Clinical Guideline References

1. Management of Osteoarthritis of the Hip. AAOS. (2017) found at: <http://www.orthoguidelines.org/topic?id=1021>
2. Management of Osteoarthritis of the Knee. AAOS. (2015) found at: <http://www.orthoguidelines.org/topic?id=1019>
(print summary)
3. Preventing Venous Thromboembolic Disease in Patients Undergoing Elective Hip and Knee Arthroplasty (2011).
Found at: <http://www.orthoguidelines.org/topic?id=1006> (print summary)
4. Management of Postoperative Pain: A clinical practice Guideline from the American Pain society, the American Society of Regional Anesthesia and Pain Medicine, and the American Society of Anesthesiologists committee on regional anesthesia. (2016) [J Pain](#). 2016 Feb;17(2):131-57. doi: 10.1016/j.jpain.2015.12.008.
5. **Surgical Site Infection Prevention. NAON (2013).**

Other Helpful sources of information:

1. DVT Prophylaxis:
 - a. Parvizi, J., Azzam, K., Rothman, R. (2008). Deep Venous Thrombosis Prophylaxis for Total Joint Arthroplasty: American Academy of Orthopaedic Surgeons Guidelines. *The Journal of Arthroplasty*, 23(7). doi:10.1016/j.arth.2008.06.028
 - b. Larkin, B., Mitchell, K., Petrie, K. (2012). Translating Evidence into Practice for Mechanical Venous Thromboembolism Prophylaxis. *AORN*, 96(5). <http://dx.doi.org/10.1016/j.aorn.2012.07.011>
2. Pain Management:
 - a. Parvizi, J., Miller, A., Gandhi, K. (2011). Multimodal Pain Management After Total Joint Arthroplasty. *Journal of Bone and Joint Surgery*, 93. doi: 10.2106/JBJS.J.01095
3. SSI / UTI Prevention:
 - a. Smith, M., Dahlen, N. (2013) Clinical Practice Guideline Surgical Site Infection Prevention. NAON, Chicago, IL
 - b. The Miriam Hospital. (2013). PreOperative Antiseptic Showering, Nasal Screens, and Decolonization Policy (PAT10)
 - c. The Miriam Hospital. (2013). Urinary Catheter Discontinuation Protocol and Procedure (PCS-34)
4. Post Operative Day ZERO Mobilization:
 - a. Morris, B., Benetti, M., Marro, H., Rosenthal, C. (2010). Clinical Practice Guidelines for Early Ambulation Hours after Surgery. *Orthopaedic Nursing*, 29(5). doi: 10.1097/NOR.0b013e3181ef7a5d
5. Pre-Operative Education

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- a. Thomas, K., Sethares, K. (2008). An Investigation of the Effects of Preoperative Interdisciplinary Patient Education on Understanding Postoperative Expectations Following a Total Joint Arthroplasty. *Orthopaedic Nursing*. 27(6), 374-81.